UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

Reply To
Attn Of: ECO-087

July 21, 2003

The Honorable Doc Hastings
House of Representatives
1323 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Hastings:

Thank you for your letter of March 21, 2003, regarding the Total Maximum Daily Load (TMDL) for temperature for the Columbia and Lower Snake River Mainstem that Region 10 - U.S. Environmental Protection Agency (U.S. EPA), is developing in coordination with the states of Idaho, Oregon, and Washington, and Columbia Basin Tribes. Although U.S. EPA has prepared a draft of this TMDL, U.S. EPA has not yet proposed the TMDL for public comment. Therefore, it is still a work in progress. This letter and the enclosure provide a response to the important issues that you raise in your letter.

This effort to develop a TMDL for the Columbia and Lower Snake Rivers is similar to many other TMDL efforts currently underway throughout the Region and the Nation. A TMDL is a tool created by the Clean Water Act (CWA) to achieve the water quality goals already established by state and tribal water quality standards. Thus, the result of this TMDL effort and others would not be the establishment of water quality goals. Rather, water quality goals for the Columbia and Lower Snake mainstem and other rivers and streams have already been established by state and tribal water quality standards.

Under the Section 303(c)(2)(A) of the Clean Water Act, water quality standards include designated uses and water quality criteria to protect those designated uses. As required by Section 303(d)(1)(C) of the Clean Water Act, this draft TMDL is being calculated at a level necessary to implement the applicable water quality standards, which in this case were adopted as state law by the States of Washington, Oregon, and Idaho. These standards include water quality criteria for temperature, which are based on the natural temperatures of the Columbia and Snake Rivers. Those water quality criteria establish the water quality goal for this draft TMDL.

This draft TMDL is not an endorsement of dam removal. The TMDL analysis does simulate water temperature in the absence of human activities in the rivers as an attempt to quantify the natural temperature component of the states' water quality criteria as required by the CWA and U.S. EPA regulations. I agree with you that there are questions about the attainability of these water quality standards given the presence of the dams and the apparent lack of feasible alternatives to improve temperature sufficiently to achieve state water quality standards. Legal questions have also been raised concerning the applicable requirements of the CWA and U.S. EPA's implementing regulations.

Working with the three states and the Federal Columbia River Power System (FCRPS) Action Agencies, U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, and Bonneville Power Administration, U.S. EPA is currently engaged in an intensive effort to address these questions at the executive and staff level. In coordination with all the interested parties, U.S. EPA is working with the states and the other Federal agencies to identify feasible management options for improving temperature. Concurrent with that effort is the commitment to evaluate the need to revise the water quality standards upon which the draft TMDL is based should the temperature improvements contemplated by those water quality standards prove to be unattainable. U.S. EPA is also discussing with the other Federal agencies the legal issues that have been raised.

If the water quality standards are not attainable, the States may opt to revise them by conducting a use attainability analysis pursuant to 40 CFR 131.10(g)(4). This regulation allows modification of uses in state water quality standards when "[d]ams, diversions or other types of hydrologic modification preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modifications in a way that would result in the attainment of the use." The identification of the natural background condition, in this case for temperature, is a logical first step in this process. The States are working to clearly articulate and coordinate their internal management procedures in order to provide the FCRPS Action Agencies with coordinated decisions regarding development of the TMDL and implementation of it once it is finalized.

Water temperature in the Columbia and Snake rivers is a long-standing, unresolved issue in the Pacific Northwest and has been the subject of time consuming and expensive litigation. I believe that if we leave this issue unresolved it will continue to spawn contention and litigation in the Region. Therefore, we are working hard in U.S. EPA-Region 10 with the States, Tribes, Federal Action Agencies, National Marine Fisheries Service and U. S. Fish and Wildlife Service to resolve this issue within the frame work of the Clean Water Act in a manner that balances ecosystem recovery needs with economic, social and cultural sustainability of the Northwest Region. It is not an easy balance to achieve and the debate is not without contention and concern on the part of the affected parties. I greatly appreciate your concern and assistance in moving this effort forward. I have included specific responses to each of the four questions in your letter in the enclosure.

Please contact me if you would like to discuss these important issues further. I can be reached at (206) 553-1234 and Randy Smith, Director of the Region 10 Office of Water, can be reached at (206) 553-1261.

Sincerely,

L. John Iani
Regional Administrator

Enclosure

cc: Tom Fitzsimmons, Director, Washington Department of Ecology
Stephanie Hallock, Director, Oregon Department of Environmental Quality
Steve Allred, Director, Idaho Department of Environmental Quality

Enclosure
Response to Congressman Hastings Letter of March 21, 2003

1. *"Does the temperature reduction goal in the draft TMDL assume that the 15 dams on the Columbia and Snake Rivers were never built? If so, why did U.S. EPA Region X reject the recommendations of the Federal Advisory Committee on the Total Maximum Daily Load Program to assume the existence of these dams as part of the temperature baseline?"*

With respect to the first part of this question, yes, the temperature reduction goal is based on the water temperature that would exist in the absence of the human activities that affect temperature in the rivers. As explained in the cover letter, the criteria in the states' water quality standards are based on natural temperatures. Those temperatures are not quantified in the water quality standards, therefore the process of interpreting and quantifying the natural temperature is undertaken on a water-by-water basis when necessary for CWA purposes, e.g., the development of TMDLs. Once quantified, the natural temperatures constitute the water quality goal of the TMDL, because the TMDL must be established at levels necessary to attain and maintain the applicable narrative and numeric water quality criteria. See CWA Section 303(d)(1)(C); 40 C.F.R. § 130.7(c)(1).

We believe the approach used in developing the draft TMDL is consistent with the 1998 TMDL Federal Advisory Committee Act (FACA) recommendations you identify. The gist of the FACA report is that ultimately the existence of dams (not their operation, maintenance or potential modification) should be given a background allocation. See FACA Recommendation 2, at 47. We understand that and agree with that ultimate result. The issue, however, seems to one of timing. Based on the record available today, U.S. EPA is unable to determine which temperature impacts are caused by the mere presence of the dams, and which are caused by activities at the dams within their control. The FACA report seems to contemplate that the availability of feasible controls will be investigated before a "special challenge source" like a dam is given a background allocation. The FACA report first recommends that states, tribes and U.S. EPA proceed on the assumption that a feasible TMDL can be developed for impairments involving dams . (See FACA Recommendation 3, at 47.) It then recommends that the TMDL should include allocations for dams, and that the implementation plan accompanying the TMDL lay out specific steps, such as changes to operation, maintenance and potential modifications, to address the dams. (See FACA Recommendation 3, at 47.) Finally, the FACA report provides, "As a last resort, if no strategy can be found to address impairment due to the dam, States may conduct a Use Attainability Analysis (UAA) in which they would be required to justify a change in designated uses." (See FACA Recommendation 7, at 48.) As a result of these investigations, the States will have a basis for revising their water quality standards through the UAA process to account both for the presence of dams and for the feasible improvements in temperature that the States judge will result from changes in operation and maintenance and potential structural modifications.

In this way the process focuses on the temperature improvements that are technically and economically feasible. Unless we go through this analytical process, we will not know how much of the impairment due to dams should be allocated to their existence as opposed to their operation, maintenance or structural modification.

2. *"Do you agree that the purpose of any TMDL is to implement water quality standards that must be consistent with the Clean Water Act's Section 303(c)(2)(A) requirement that water quality standards "shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and*

other purposes...?" If so, please explain how the draft temperature TMDL is consistent with such a requirement.

The purpose of a TMDL is to implement the applicable water quality standards. See CWA section 303(d)(1)(C). State water quality standards must be consistent with section 303(c)(2)(A). The States adopt designated uses for their waters and criteria to protect those uses. Generally, achieving water quality that will protect the State's most sensitive designated use, in this case salmon, will protect other designated uses.

The real issue here is the concern that removal of dams is the only measure that will achieve the water quality standards that are intended to protect salmon uses. The draft TMDL does not call for dam removal. The implementation plan will determine if there are feasible measures to meet the water quality standards with the dams in place. If not, the water quality standards can be revised, at the discretion of the States, with U.S. EPA approval, to reflect the level of water quality that can be achieved when feasible measures to improve temperature are implemented. For example, for total dissolved gas, Oregon and Washington have reconciled the need for spill to enhance fish passage with the need to control total dissolved gas that results from spill through the water quality standards process. In that event, a TMDL for the Columbia and Snake Rivers would be established – or, if it has already been issued, it would be revised – to reflect the revised water quality standards.

3. *The primary stated purpose of reducing peak water temperatures in the Columbia River is to benefit fish and wildlife, particularly salmon and steelhead. Do you agree that the goal of the draft TMDL and related regulatory actions should be to improve biological outcomes for fish rather than achieve temperature criteria regardless of the costs and the biological benefits produced? If you do agree that the TMDL should focus on biological benefits to fish rather than achievement of temperature criteria regardless of the costs and biological benefits, please explain how the draft TMDL to be issued by U.S. EPA is consistent with such an approach.*

Ultimately, the purpose of improving water quality is to restore and protect the designated uses of the river, in this case, the fish uses. It is the role of the water quality criteria, not a TMDL, to specify the amount of pollutants (in this case, the temperature of the water) that can be present without impairing the designated uses. When there is more than one use designated for a body of water, the water quality criteria must support the most sensitive use. See 40 C.F.R. § 131.11(a). The designated uses and the water quality criteria together form the water quality standards. It is the purpose of a TMDL to establish the pollutant loads that sources can contribute to the river without exceeding the water quality standards. See 40 C.F.R. § 130.2(f)-(i). A TMDL identifies the improvements needed at the pollutant sources to achieve the water quality standards. If it is not feasible to achieve the improvements and thus fully protect a use, the designated uses can be revised through a use attainability analysis and the water quality criteria can be changed to reflect the modified use. See 40 C.F.R. § 131.10. Federal regulations at 40 C.F.R. §131.10(g)(4) specifically allow the removal or revision of uses if they cannot be attained due to the presence of dams: "*Dams, diversions or other types of hydrologic modification preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modifications in a way that would result in the attainment of the use.*" Further, if the use can be attained but the costs of doing so would cause undue economic impacts, federal regulations at 40 CFR 131.10(g)(6) allow modification of the use if "*controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic or social impact.*"

It is important that the TMDL being prepared for the Columbia and Snake rivers identify the

actual improvements in temperature that are necessary to achieve water quality standards so that a determination can be made if attainment is (1) feasible and (2) would not result in substantial and widespread economic or social impact. So, in short, yes, I believe that we are working hard to achieve the balance between the environmental, economic and social needs of the Region using the frame work and processes laid out in the Clean Water Act and implementing regulations.

4. *Oregon's water quality standards, approved by U.S. EPA Region 10, do not require application of numeric temperature criteria in circumstances where it is not reasonable to achieve reductions in temperature required by water quality standards. Instead, the Oregon standards require the development of a temperature management plan that protects fish and wildlife resources while taking into account compliance costs as well as the benefits provided by a hydroelectric facility. Has U.S. EPA Region 10 considered adopting some version of this approach in the draft TMDL? If not, why not?*

This TMDL is being developed by U.S. EPA at the request of Oregon, Washington and Idaho and in full partnership with the Oregon and Idaho Departments of Environmental Quality and Washington Department of Ecology. All States participated in both the technical and policy committees for development of the draft TMDL and we will not move forward with any aspects of the TMDL effort without their concurrence. Oregon's Temperature Management Plan (TMP) provision is a state policy requiring a separate implementation plan for attaining the State's water quality standard for temperature . The TMP does not replace or alter Oregon's temperature standards; therefore, a TMP does not affect the water quality goals that a TMDL is established to achieve. Rather, these plans, developed by specific facilities at the discretion of the state, are designed to achieve reductions in temperature with the goal of meeting state water quality standards . . A TMP describes the measures necessary to be implemented by specific facilities to reverse the warming trend in the river. These measures must be implemented and maintained until the numeric criterion is achieved or until the Department has determined that all feasible steps have been taken to meet the criterion and that the designated beneficial uses are not being adversely impacted.

Implementation of a final TMDL is entirely a State responsibility. Nothing in the development of this TMDL prevents Oregon or any of the other States from requiring the FCRPS Action Agencies to establish TMPs or any other state-specific implementation plan.